

IOWA HIGHWAY RESEARCH BOARD

Minutes of February 22, 2002

Regular Board Members Present

J. Adam
R. Ettema
J. George
R. Gould
L. Greimann
D. Julius
B. Keierleber

R. Krauel
K. Mahoney
M. Nahra
J. Selmer
C. Van Buskirk
W. Weiss

Alternate Board Members Present

S. Andrie
J. Berger
L. Brehm
J. Ites

L. Jesse
R. Schletzbaum
B. Younie

Board Members With No Representation

T. Myers
J. Weber

Secretary

M. Dunn

Visitors

LaDon Jones
Jenny Balis
Sara Buseman
Dave Claman
Ed Engle
Mike Heitzman
Sandra Larson
Mohammad Mujeeb
Bob Steffes
Dale Harrington
Hosin "David" Lee

Digital Control, Inc.
FHWA
Iowa Department of Transportation
Iowa Department of Transportation
Iowa Department of Transportation
Iowa Department of Transportation
Iowa Department of Transportation
Iowa Department of Transportation
Iowa State University/CTRE, Ctr. for PCC Pavement
The University of Iowa

The meeting was held in the Large Materials Conference Room at the Iowa Department of Transportation, Ames, Iowa. The meeting was called to order at 9:05 A.M. by Wade Weiss.

Agenda Review/Modification

- The date of the next, which conflicts with Good Friday, was asked to be added to agenda item 10, “New Business”. Jim George moved to approve the agenda with this modification. Randall Krauel seconded. Carried with 11 yes, 0 no, and 0 abstaining.

Announcement of New Members/Alternates

- Wade Weiss announced Dr. Rob Ettema as the new Board member for The University of Iowa. If a university member will not be able to attend a meeting, he will choose an alternate who best avoids the “conflict of interest” situation for that particular meeting.
- Wade Weiss also announced the change of Roger Gould being appointed to a regular Board member position in place of Sandra Larson. Jim Berger, the new Director of Materials, is his alternate.
- Kevin Mahoney elaborated on his memo that was e-mailed to the Board regarding the changes with the reorganization of the Highway and Research Management Divisions. He introduced Sandra Larson as the Director of the new Research and Technology Bureau, which will be in the Highway Division. She will oversee ITS functions and research efforts and serve in a similar capacity to the Board as Ian MacGillivray had served. Sandra Larson added that she was looking forward to this role.

Approval of the Minutes

- Brian Keierleber moved to approve the minutes from the January 25, 2002 meeting with no additions or corrections. Mark Nahra seconded. Carried with 12 yes, 0 no, and 0 abstaining.

Problem Statement/Proposal, “Development of a Mix Design Process for Cold-In-Place Rehabilitation (CIPR) Using Foamed Asphalt”

- Dr. Hosin “David” Lee, The University of Iowa, presented the problem statement; the history of foamed asphalt; the physical effects of foaming; the proposed research, including Tasks A - D; and the proposed budget and time frame for this research. The various tasks include a review of past foamed asphalt research; an evaluation of current practices of CIPR, including the current mix design, recycled asphalt pavement (RAP) amounts, and SuperPave design with emulsion; a determination of mix design parameters, which includes the purchase of a laboratory unit and testing of heated aggregate mixtures; and the development of a mix design procedure, including the determination of optimum moisture content.
- The DOT will be working with Dr. Lee to line up the projects that will be involved in this research. A number of RAP sources this year will be needed to do the work in the lab to come up with the mix design process. US 20 went through as foamed asphalt and will be a great opportunity to be used as a RAP source.
- APAI has not been asked to support this research. They have, however, purchased lab equipment in the past.

- Mark Dunn will handle the details on the purchase of equipment involved in this project during the contract negotiation process. The contract will address the issues about ownership, depreciation, future DOT use, etc.
- Mike Heitzman reported that the Central Materials Office is expecting delivery of similar equipment to the one being discussed for this research, within a month.
- The funding of \$20,000 from The University of Iowa was discussed. These funds may not be available at a later date due to cuts in the budget and a competitive process inside the university. The consensus was, however, that this project falls under the IHRB Business Plan category of a timely opportunity and driven by technology rather than The U of I funding opportunity. If it went through the solicitation process, no pilots would be run in 2003 and it would put it behind the curve and lose the opportunity to utilize the material. It was felt that the results of this research would be beneficial to have in a timely manner.
- Mark Nahra moved to approve the problem statement. John Adam seconded. After discussion of the option of having this approved as a problem statement or a proposal, it was decided that what was submitted was complete and the research would benefit from moving forward in a timely manner. Mark Nahra amended the motion that this be approved as a proposal. John Adam, who had seconded the original motion, concurred and his second stands. Carried, 12 yes, 0 no, 1 abstaining.

Discussion on TR-411, “An Improved Computer Program for River Valley Rating Curves”

- Dave Claman, DOT, presented the background and current situation of this project. Dr. Al Austin, who is the current principal investigator, has made a good faith effort, but is not completing the addition to this program with the attention and timeliness it needs. It was expressed that having several people (3 graduate students to this point) writing code on the same program causes problems with the operation of it. Also, with the nature of software, having on-going support available is increasingly important. There is also a request for calculations with the river valley rating curve to be changed. Dave Claman is asking the Board for direction. His recommendation is to request that the Board consider terminating the project with Dr. Austin and have LaDon Jones, Digital Control, Inc., write the program.
- LaDon Jones has been successful in writing another program for project TR-447, “A Computer Program for the Hydraulic Design of Culverts.” This program would be written with the same understanding as with TR-447 and be property of the DOT.
- It was agreed that this should be discussed with Dr. Austin prior to the Board taking action.
- After discussion, Mark Nahra moved that the details be worked out with Dr. Austin regarding terminating his project and that LaDon Jones bring a proposal back to the Board at the next meeting regarding developing this program, including updating the river valley rating curve. Brian Keierleber seconded. Carried, 13 yes, 0 no, and 0 abstaining.
- Mark Dunn, Dave Claman, and Dr. Austin will discuss the termination details, including the option for Dr. Austin to address the Board if he wishes. This information will be brought back to the Board prior to acceptance of any further action with this project.

Review of proposal from 1st Solicitation for FY 01-02, following staff discussion, for “Synthesis of Best Practices for Increasing Protection and Visibility of Highway Maintenance Vehicles”

- The Board reviewed the revised proposal that was e-mailed prior to the meeting. This proposal focused on “Maintenance Vehicles” and took out the “Worker” aspect.
- It was agreed that this is a better fit to the RFP specifics and more of what the Board was looking for in general.
- The end product of the synthesis itself is to be a manual that reviews and summarizes the pros and cons of the most beneficial information, according to different circumstances, found from the literature search.
- Jim George moved to accept the proposal. Randall Krauel seconded. Carried, 13 yes, 0 no, 0 abstaining.

Report of budget changes to the following approved projects:

TR-469, “Reduction of Concrete Deterioration by Ettringite Using Crystal Growth Inhibition Techniques, Phase II - Field Evaluation of Inhibitor Effectiveness”

- Resulting from the Board’s request to include the addition of field research, a justification of budget revision to the initial proposal was handed out and reviewed. The additional costs for laboratory evaluation fell mainly under equipment use, materials and supplies. There were no additional personnel costs.
- Mark Dunn reported that the DOT will be choosing both newer pavements and pavements from the time frame in question. There are 3-4 applications planned, avoiding the winter months for the testing time.
- It was felt that the increase from \$131,120 to \$142,070 was justified and reasonable for the additional work that the Board was requesting.
- John Selmer moved to approve the addition to the project. Doug Julius seconded. Carried with 12 yes, 0 no, and 0 abstaining.

TR-471, “Evaluation of Using Non-Corrosive Deicing Materials and Corrosion Reducing Treatments for Deicing Salts”

- Mark Dunn reported the outcome after discussing the addition of exploring undercutting and evaporation to this research with Dr. Wilfrid Nixon. Dr. Nixon felt that it would be just an additional property to look at and did not foresee any additional costs to the project with the inclusion of these aspects.

Discussion of assigning a specific budget guideline on an RFP

- It was the consensus of the Board that there was a sufficient answer given from the universities explaining that setting a target budget was helpful in designating an expected level of effort and how far the research should go. This amount helps in the review process of competing proposals; it is easier to compare what is being received for a similar amount of money. In the past, the Board has adjusted the amounts during the RFP reviews if it was felt to be necessary.

- It is the desire of the Board that the investigators are aware that additional research is welcome in the proposal (noted separately, with clear explanation and budget) if it is appropriate. There may be a case, in the future, that it will be appropriate for the Board to leave the amount open on the RFP and see what is received.
- Mark Dunn reported that there is a section of the cover letter that is sent with the RFPs that encourages additional research if proven beneficial. He will check on this language, clarify it, if necessary, and bring it back to the Board.

Discussion of the business procedure to allow, or not, clarification(s) from Principal Investigator(s) on non-competing solicited proposals.

- There was support voiced in favor of allowing Principal Investigators with non-competing proposals, to clarify things asked by the Board. They will not be required to attend the meeting, however, if they are present, discussion may take place, as the Board deems necessary for proper clarification.
- It was also mentioned that the Board could choose to allow Principal Investigators to give written response to anything that is in need of clarification in a case of competing proposals. This would, however, postpone the approval of the project for a month. Depending on what clarification is desired, the Board can choose to either defer for a month and receive clarification, or have the proposals stand as originally submitted, approve a proposal, and have staff negotiate any changes desired by the Board. It was agreed that verbal input during a meeting, in a competitive situation, would possibly give an unfair advantage and is preferred to remain non-permissible.
- Mark Dunn will incorporate the appropriate language into the Business Plan to reflect the Board's preference to allow discussion as necessary with the Principal Investigator in the case of a non-competing proposal. It will be brought to the Board for review and approval.

New Business

The balances of the Primary, Secondary, and Street Research Funds were discussed

- Mark Dunn reviewed the differences in how the money comes out of each account. The Secondary and Street Funds run off obligation. As soon as a project is approved, the full amount is obligated and sits there until it is spent. With the Primary Fund, any funds that are not spent by the end of the fiscal year disappear July 1 (beginning of the new fiscal year). When the balance in the Primary Fund is running low towards the end of the year, he can allocate the invoice amounts to come out of either or both of the other two funds. The funds look good at this point.

The date of the March meeting was discussed

- The meeting was originally scheduled for March 29, which is Good Friday and some people are taking vacation time then. One advantage to the county engineers of holding the meeting on the 22nd, would be that they will be at ISAC that week already and a Friday morning IHRB meeting would line up well with that. The APWA Public Works Conference is in Ames on the 21st and 22nd. It runs until 1:00 PM on Friday. Randall Krauel, representing the cities, did agree that the 22nd would still be better than the 29th. After discussion, the Board decided to change the meeting to March 22. Due to a DOT conference room conflict, the meeting will be held at the

Ames Drivers License Station conference room. A map will be sent out with the next Board packet.

Calendar of events

- Mark Dunn will be bringing a calendar of events, which is an attachment to the Business Plan, to the next meeting to be reviewed. He will get input from the universities as to timing that works well for the investigators. With the new Board process, it is becoming more necessary to follow a suggested timeline to fit in all aspects of business and 2 groups of solicitations into each fiscal year.

Wade Weiss adjourned the meeting.

SPECIAL NOTE: - DATE AND LOCATION CHANGE

DATE AND LOCATION of Next Meeting:

THE NEXT MEETING WILL BE HELD FRIDAY, MARCH 22, 2002 AT 9:00 A.M. IN THE CONFERENCE ROOM, AT THE AMES DRIVERS LICENSE STATION, IN AMES, IOWA.

Mark Dunn, IHRB Secretary